

Section 02501S

DUCTILE IRON PIPE AND FITTINGS

*The following supplements modify Section 02501 – Ductile Iron Pipe and Fittings Standard Specification. Where a portion of the Specification is modified or deleted by this Supplementary Specification, the unaltered portions of the Specification shall remain in effect.*

- 1.02 MEASUREMENT AND PAYMENT: Add the following to Paragraph B.

“Payment for Extra Ductile Iron Compact Fittings in Place will be on a per ton basis.”

- 1.03 REFERENCES: Delete paragraph M and replace with the following paragraph M.

“M. AWWA C105 Polyethylene encasement for Ductile-Iron Pipe Systems.”

- 2.01 DUCTILE IRON PIPE: Delete paragraphs A, C and D and replace with the following paragraphs A, C and D.

“A. Ductile Iron Pipe Barrels: Shall conform to AWWA C115, C150 and C151 and bear mark of Underwriters' Laboratories approval. Unless otherwise shown on Drawings, use minimum Pressure Class 250 for water lines or thickness Class 52 for water lines in casing or augered hole. Provide minimum thickness Class 52 for sanitary sewers. Provide minimum Pressure Class 350 for flanged pipe.

C. (Not Used)

D. If shown on Drawings, provide Cathodic Protection System in accordance with Section 16640 – Cathodic Protection for Pipelines.”

Add the following Paragraph 2.01 :

“I. No welding will be permitted on Ductile Iron Pipe except at restrained joint spigots. No field welding is allowed”

- 2.02 JOINTS: Add the following to paragraph B:

“Refer to City’s List of Approved Products for approved joint restraint mechanisms.”

Delete paragraph E and replace with the following paragraph E.

“E. Electrical Bond Wires: Bond wires; use stranded, copper cable furnished with high molecular weight polyethylene insulation (HMWPE). Use wire gauge (AWG) as shown on Drawings.”

2.04 FITTINGS: Delete paragraph E and replace with the following paragraph E and F.

- “E. Ductile Iron Compact Fittings: Shall conform to AWWA C153 and shall be:
1. fusion bonded epoxy lined or
  2. cement mortar lined.”
- “F. For tangential flanged outlets shown on Drawings, substitute with a tee with an equivalent sized outlet unless otherwise approved by Project Manager.”

2.05 COATINGS AND LININGS: Delete paragraph B.4.b and replace with the following paragraph B.4.b.

“b. Ceramic Epoxy – Protecto 401 or approved equal”

Delete paragraph D and replace with the following paragraph D.

- “D. Encasement and coating requirements:
1. Open cut construction method:
    - a. Provide double wrap polyethylene encasement applied in accordance with AWWA C105 or
    - b. Provide Polyurethane coating in accordance with Section 02527 – Polyurethane Coatings on Steel and Ductile Iron Pipe.
  2. Auger or casing construction method:
    - a. Provide Polyurethane coating in accordance with Section 02527 – Polyurethane Coatings on Steel and Ductile Iron Pipe” or
    - b. Provide minimum thickness Class 52 pipe, double wrap with polyethylene encasement. Place circumferential wraps of tape or plastic tie straps at two-foot intervals along the barrel of the pipe, and thoroughly seal each end of the polyethylene tube.

Delete paragraph H.

3.01 INSTALLATION: Delete paragraph C and replace with the following paragraph C.

- “C. Install double wrap Polyethylene encasement in conformance with requirements of AWWA C105 and Section 02528 – Polyethylene Wrap.”

Add the following paragraph E.

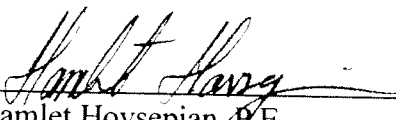
- “E. Provide electrical continuity bonding across buried mechanical and push-on joint assemblies, except where insulating flanges are required by Drawings.
1. Provide minimum number of bond wires shown on Drawings. Remove one inch of HMWPE insulation from each end of bond wire prior to attaching.
  2. Secure wire onto pipe using approved Thermite Welding procedures.
  3. Coat bare metal and weld metal after weld is secure. Use coal-tar compound or other

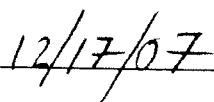
compatible coating. For polyurethane coated pipe, use compatible polyurethane coating.

4. Visually inspect Thermite Weld connections for electrical continuity, strength and suitable coating prior to backfilling or placing pipe in augered hole or casing.”

END OF SUPPLEMENT

Approved by:

  
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Hamlet Hovsepian, P.E.  
Managing Engineer  
Engineering and Construction Division

  
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Date